Vivekananda College of Engineering & Technology, Puttur
[A Unit of Vivekananda Vidyavardhaka Sangha Puttur ®]
Affiliated to VTU, Belagavi & Approved by AICTE New Delhi

CRM08	Rev 1.10	Civil	11-03-22

CONTINUOUS INTERNAL EVALUATION – 3

Dept: Civil Engg	Sem / Div: 3	Sub: Basic Surveying	S Code: 18CV35
Date: 18-03-22	Time: 9:30-11:00 am	Max Marks: 50	Elective: N

Note: Answer any 2 full questions, choosing one full question from each part.

QN		Questions	Marks	RBT	CO's
		PART A			
1	a	Describe briefly radiation method and intersection method of plane tabling.	10	L3	CO4
	b	Define two point problem. Explain the graphical method of solution of two point problem with figure.	10	L3	CO4
	c	Write a note on orientation of plane table.	5	L2	CO4
		OR			
2	a	What are he advantages and disadvantages of plane table.	10	L2	CO4
	b	Explain the method of resection by bessel's three point graphical method.	10	L3	CO4
	c	List and explain the accessories used in plane table surveying.	5	L2	CO4
		PART B			
3	a	The following perpendicular offsets were taken at 10m intervals from a survey line to an irregular boundary line.	10	L3	CO4

3.25, 5.60, 4.20, 6.65, 8.75, 6.20, 3.25, 4.20, 5.65
calculate the area enclosed between the survey line, the irregular boundary line, and the first and last offsets, by the application of
a) Average ordinate rule
b) Trapezoidal rule
c) Simpson's rule

b	Discuss the method of determining the areas and volumes.	10	L3	CO4
c	Explain the different methods of contouring	5	L2	CO4

OR

4 a	Define contour. Enumerate the characteristics of contour with sketches.	10	L2	CO4
b	A railway embankment 400m long is 12m wide at the formation level and has the side slope 2 to 1. The ground levels at every 100m along the centre line are as under.	10	L3	CO4

Distance in m	0	100	200	300	400
RL in m	204.8	206.2	207.5	207.2	208.3

The formation level at zero chainage is 207m and the embankment has a rising gradient of 1 in 100. The ground is level across the centre line. Calculate the volume of earthwork using trapezoidal and prismoidal rule.

c	Explain: a)Contour interval b)Planimeter	5	L2	CO4

Prepared by: Prof. Sumanth A

HOD